

CLAIMS:

I claim:

1. A lamp adjuster comprising:

a housing;

5 an anti-rotation gear positioned inside the housing;

a motor engaged to the housing; and,

a control rod passing through and engaged with the anti-rotation gear and the motor.

2. The lamp adjuster of claim 1 where the control rod has a driver end and a rotation point.

3. The lamp adjuster of claim 2 where the anti-rotation gear is configured to geometrically mate  
10 with the rotation point of the control rod such that rotation of the anti-rotation gear causes the control rod to rotate.

4. The lamp adjuster of claim 1 where the motor comprises a magnetic rotor and a driver unit such that the magnet is rotatable by the drive unit.

5. The lamp adjuster of claim 4 where the driver end passes through the magnet and the driver  
15 end and the magnet are threaded.

6. The lamp adjuster of claim 1 where the housing has at least one flex point positioned therein such that the flex point interacts with and engages the anti-rotation gear.

7. The lamp adjuster of claim 1 where the anti-rotation gear is positioned inside the housing such that the interference between the anti-rotation gear and the housing prevents the anti-rotation gear from rotating with the lamp adjuster is actuated.
8. The lamp adjuster of claim 1 where the housing has a driver input locator into which a driver  
5 may be inserted to engage the anti-rotation gear.
9. The lamp adjuster of claim 1 where the adjuster is engaged to a lamp and a mounting bracket such that actuation of the adjuster causes the lamp to move with respect to the mounting bracket.
10. The lamp adjuster of claim 1 where the adjuster is engaged to a reflector and a mounting  
10 bracket such that actuation of the adjuster causes the reflector to move with respect to the mounting bracket.
11. A lamp assembly comprising;
- a mounting bracket;
- a lamp pivotally positioned on the mounting bracket; and,
- an adjuster including a housing, a motor engaged to the housing, and a control rod, where  
15 the control rod passes through the housing and the motor and is engaged by the motor, the housing engaged to the mounting bracket and the control rod engaged to the lamp, where the adjuster further includes an anti-rotation gear positioned inside the housing such that the control rod passes through and functionally engages the anti-rotation gear.
12. The lamp assembly of claim 10 where the control rod has a driver end and a rotation point.

13. The lamp assembly of claim 12 where the anti-rotation gear is configured to geometrically mate with the rotation point of the control rod such that rotation of the anti-rotation gear causes the control rod to rotate.
14. The lamp assembly of claim 13 where the motor and driver end are counter threaded.
- 5 15. The lamp assembly of claim 11 where the housing has at least one flex point positioned therein such that the flex point interacts with and functionally engages the anti-rotation gear.
16. The lamp adjuster of claim 11 where the anti-rotation gear is positioned inside the housing such that the inference between the anti-rotation gear and the housing prevents the anti-rotation gear from rotating with the lamp adjuster is actuated.
- 10 17. The lamp assembly of claim 11 where the housing has a driver input locator into which a driver may be inserted to engage the anti-rotation gear.
18. The lamp assembly of claim 11 further comprising a power supply electrically connected to the motor.
19. The lamp assembly of claim 11 further comprising a control unit electrically connected to  
15 the motor.
20. The lamp adjuster of claim 11 where the housing is engaged to the mounting bracket and the control rod is engaged to the lamp.
21. The lamp adjuster of claim 11 where the lamp includes a bulb, a reflector, a lens engaged to the reflector, and a bulb engaged to the reflector.

22. The lamp adjuster of claim 21 where the housing is engaged to the mounting bracket and the control rod is engaged to the reflector of the lamp.

23. A lamp adjuster comprising:

a housing with at least one flex point therein and a driver input shaft where a driver may  
5 be inserted;

an anti-rotation gear positioned inside the housing such that the at least one flex point  
interacts with and engages the anti-rotation gear;

a motor engaged to the housing, the motor including driver unit with a magnetic rotor  
positioned therein;

10 a control rod that passes through the anti-rotation gear and the magnet and is engaged by  
anti-rotation gear and the magnet, the control rod having a driver end and a rotation point; and,

where the driver end and the magnet are in threaded engagement and the anti-rotation  
gear is configured to geometrically mate with the rotation point of the control rod such that  
rotation of the anti-rotation gear causes the control rod to rotate.

15 24. The lamp adjuster of claim 23 where actuation of a driver inserted into the driver input  
locator causes the control rod to rotate and move axially.

25. The lamp adjuster of claim 23 where operation of the motor causes the control rod to be  
threaded through the magnet and move axially.

26. The lamp adjuster of claim 23 further comprising a power supply electrically connected to the motor.

27. The lamp adjuster of claim 23 further comprising a control unit electrically connected to the motor.